

To,  
The Principal,  
Tuljaram Chaturchand College,  
Baramati

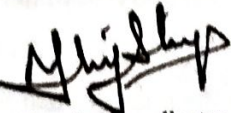
Subject: - Completion report of Certificate Course in PCB & Circuit Designing


Respected Sir,

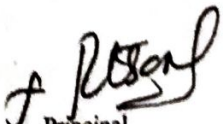
As mention above the subject, I have successfully conducted certificate course in PCB & Circuit Designing. Total 12 students were enrolled for this course. This course was completed in the month of Sep-October 2022 offline (Hands on training of PCB design). Theory and Practical sessions were conducted to complete the certificate course. Online MCQ exam is conducted on 22 October 2022 to evaluate the students. I hereby attach result of the students along with this report. I also request you to sanction remuneration for this course as a course coordinator.


Thank you.

  
Course Coordinator

  
Faculty Coordinator

  
Chairman, Certificate Course

  
Principal

  
Head  
Department of Electronics

Anshant Education Society's  
Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati  
(Autonomous)

Certificate Course-2021-22  
Subject - CC-084 Basic digital marketing

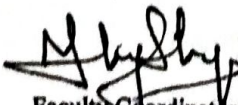
**Timetable (Theory and Practical)**

Theory Lecture- 1 hr + Practical-3 hrs/Practical

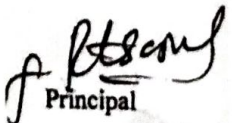
Date / Theory	Time	Date/ Practical	Time
23/09/22	10.30 am to 11.30 am	10/10/22	09.30 am to 11.30 am
24/09/22	10.30 am to 11.30 am	11/10/22	09.30 am to 11.30 am
27/09/22	10.30 am to 11.30 am	12/10/22	09.30 am to 11.30 am
28/09/22	10.30 am to 11.30 am	13/10/22	09.30 am to 11.30 am
29/09/22	10.30 am to 11.30 am	14/10/22	09.30 am to 11.30 am
30/09/22	10.30 am to 11.30 am	15/10/22	09.30 am to 11.30 am
01/10/22	10.30 am to 11.30 am	17/10/22	09.30 am to 11.30 am
03/10/22	10.30 am to 11.30 am	18/10/22	09.30 am to 11.30 am
04/10/22	10.30 am to 11.30 am	19/10/22	09.30 am to 11.30 am
06/10/22	10.30 am to 11.30 am	20/10/22	09.30 am to 11.30 am
07/10/22	10.30 am to 11.30 am		
08/10/22	10.30 am to 11.30 am		

Lecture = 12 hrs. + Practical = 18 Hrs. = Total 30 hrs.


  
Course Coordinator

  
Faculty Coordinator

  
Chairman, Certificate Course

  
Principal

**Anekant Education Society's  
Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati  
(Autonomous)**

Route Code No	0032	Subject Code: CCAug22
Exam Center No:	016	Name of Course:- PCB & Circuit Designing
		Exam Name: Certificate Course October 2022
		Sem: III (27/09/2022 to 20/10/2022) Exam : 22/10/2022
		Co-ordinator :- Dr. S. N. Patil
		Signature : 

Sr. No	Seat No	PRN	Student Name	Marks/Grade /Ab	Remark	Class
1	6710	13213206101	Sapkal Manasi pandurang	36 / 50	Complete	SY.B.Sc.
2	6719	13213206322	Kumbhar Shivam Arjun	32 / 50	Complete	SY.B.Sc.
	6864	13213206109	Wanave Rohit Bhausahab	32 / 50	Complete	SY.B.Sc.
4	6865	13213206089	Pawar amol shankar	28 / 50	Complete	SY.B.Sc.
5	6866	13213206014	Varhade Abhay kisan	36 / 50	Complete	SY.B.Sc.
6	6876	13213206088	Sapkal Rahul Nanaso	36 / 50	Complete	SY.B.Sc.
7	6877	13213206064	Zanje Suraj Narayan	38 / 50	Complete	SY.B.Sc.
8	6878	13213206102	Pingale Abhijit Prakash	38 / 50	Complete	SY.B.Sc.
9	6886	13213206321	Mergal Rohini Chimaji	32 / 50	Complete	SY.B.Sc.
10	6888	13213206888	Londhe Gauri Vasant	20 / 50	Complete	SY.B.Sc.
11	6914	13213206323	Chavan Shubham Rajendra	32 / 50	Complete	SY.B.Sc.
12	6916	13213206327	Bhakar Prajkata Rajendra	28 / 50	Complete	SY.B.Sc.



## Annexure-5

**Anekant Education Society's  
Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati  
(Autonomous)  
Certificate Course-2022-23**

**Subject - CCAug22 - PCB and Circuit Designing**

## Attendance

Sr. No.	Roll No.	PRN	Student Name	Theory													
				23/09	24/09	27/09	28/09	29/09	30/09	01/10	03/10	04/10	06/10	07/10	08/10		
1	6710	13213206101	Sapkal Manasi Pandurang	A	P	P	P	P	P	A		A	P	P	P	P	
2	6719	13213206322	Kumbhar Shivam Arjun	P	A	P	A	P	P	P		P	A	P	P	P	
3	6864	13213206109	Wanave Rohit Bhausaheb	P	A	P	A	P	P	P		A	A	P	P	P	
4	6865	13213206089	Pawar Amol Shankar	A	P	A	P	P	P	A		P	P	P	P	P	
5	6866	13213206014	Varhade Abhay Kisan	P	P	P	A	P	P	P		A	P	P	A	P	
6	6876	13213206088	Sapkal Rahul Nanaso	A	P	P	P	A	P	P		P	A	A	P	P	
7	6877	13213206064	Zanje Suraj Narayan	P	P	P	P	P	P	P		P	P	P	A	P	
8	6878	13213206102	Pingale Abhijit Prakash	P	A	P	P	A	P	P		P	P	P	A	P	
9	6886	13213206321	Mergal Rohini Chimaji	A	A	P	P	A	P	P		P	A	P	P	A	
10	6888	13213206888	Londhe Gauri Vasant	P	A	A	P	P	A	P		P	A	P	P	P	
11	6914	13213206323	Chavan Shubham Rajendra	P	A	P	P	P	P	P		P	P	P	P	A	
12	6916	13213206327	Bhakar Prajkata Rajendra	A	P	P	A	P	P	A		P	P	A	P	P	



Practical

Sr. No.	Roll No.	PRN	Student Name	10/10	11/10	12/10	13/10	14/10	15/10	17/10	18/10	19/10	20/10
1	6710	13213206101	Sapkal Manasi Pandurang	P	P	P	P	P	P	P	P	P	P
2	6719	13213206322	Kumbhar Shivam Arjun	A	A	P	A	P	P	P	P	P	P
3	6864	13213206109	Wanave Rohit Bhausaheb	P	P	P	P	P	P	A	A	P	P
4	6865	13213206089	Pawar Amol Shankar	P	P	P	P	P	P	P	P	P	P
5	6866	13213206014	Varhade Abhay Kisan	A	P	P	P	P	P	P	P	P	P
6	6876	13213206088	Sapkal Rahul Nanaso	P	A	P	P	P	P	P	P	P	P
7	6877	13213206064	Zanje Suraj Narayan	P	P	P	P	P	P	P	P	P	P
8	6878	13213206102	Pingale Abhijit Prakash	P	P	P	P	P	P	P	P	P	P
9	6886	13213206321	Mergal Rohini Chimaji	P	A	P	P	P	P	P	P	P	P
10	6888	13213206888	Londhe Gauri Vasant	A	A	P	P	A	A	P	A	P	P
11	6914	13213206323	Chavan Shubham Rajendra	A	A	A	P	P	P	P	A	P	P
12	6916	13213206327	Bhakar Prajkata Rajendra	A	A	P	A	P	P	P	P	A	P

*Batli*

Signature of the Course Coordinator

*for*  
HOD

*RS*

Date: 15/09/2022

To,  
The Principal,  
Tuljaram Chaturchand College,  
Baramati.

Subject: - Regarding organization of certificate course PCB & Circuit Designing in collaboration with Rajiv Electronics.


Respected Sir,

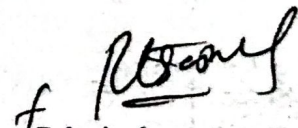
Department of Electronics has done MOU with Rajiv Electronics, Pune. This MOU primarily focus on implementing skill based training programs. Therefore, Department of Electronics and Rajiv Electronics, Pune willing to organize two credit certificate course "PCB & Circuit Designing" for S.Y. B.Sc. Electronics students to expose the knowledge of industry standards, new innovative ideas, self-employment skills etc.

Therefore, you are requested to give permission to conduct this certificate course and oblige

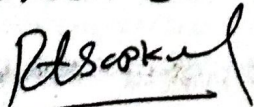
Thank you.

  
Course Coordinator

  
Head

  
Principal

Under RUSA soft  
component B(10.MOU)

  
25/11/2022

Anekant Education Society's  
**Tuljaram Chaturchand College of Arts, Science and Commerce,  
Baramati**  
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**Certificate Course in PCB and Circuit Designing**

**Notice**


Date: 21/09/2022


The students those who have enrolled for the Certificate Course CCAug22 PCB and Circuit Designing are hereby informed that, their lectures and practical are scheduled from 23<sup>rd</sup> September 2022 onwards.

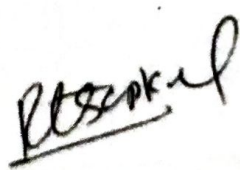
Day & Date	Time	Theory/Practical
23/09/2022 to 08/10/2022	10.30 to 11.30	Theory
03/10/2022 to 08/10/2022	3.00 to 6.00	Practical

Lecture = 12hrs. + Practical = 18hrs. Total - 30hrs.

Please Note this.

  
Dr. S. N. Patil  
Certificate Course in-charge

  
Dr. J. D. Deshpande  
Head

  
Dr. R. T. Sapkal  
Certificate Course Co-ordinator

  
Principal

# PCB Designing & Circuit Simulation

## **Topic-I**

**10**

Introduction to Electronic components, Differentiation of electronic components Circuit designing technique, Component identification and testing, Introduction to PCB & Circuit Designing, Classifications of PCB, Single layer, multilayer. Material used for PCB fabrications. Basics of hardware and software, New and upcoming Technologies, Introduction to analog and Digital circuit design, Introduction to circuit simulation software.

## **Topic-II**

**08**

Introduction to Electronic design automation(EDA) tools for PCB designing: Brief Introduction of various simulators and PCB design software, Selecting the Components Footprints as per design, Making different circuits, Proteus Software Installation, Hands on PCB design software Designing of basic circuits on Proteus, Simulation of circuits on Proteus, Testing the Schematic for error, Making Board Layout, Auto routing and manual routing

## **Topic III**

**08**

Design rules for PCB: Design rules for Digital circuit PCBs, Analog circuit PCBs, high frequency and fast pulse applications, Power electronic applications.

Development of PCB - Introduction to etching, Drilling, Soldering Methods, Safety Precautions, Different Methods of Soldering and tools.

## **Topic -IV**

**06**

Designing of Single and Dual Power supply, Relay Driver Circuit, IR Sensor module, Astable Multivibrator.